

## **REMARKS**

Claims 1-11 are in this application. Claims have been amended. Claim 11 has been amended to delete the period at the end of step c). The phrase "increasing its commercial and nutritive values" has been deleted from claim 10.

According to the Official Action, claims 1-11 are rejected under 35 USC 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. This rejection is respectfully traversed.

Claim 1 has been amended to define a process for concentrating an extract of one or more species of *Garcinia*.

Claims 9 and 10 have been amended to delete the word "free". Claim 11 has been amended to delete original step a). Original steps c) and d) of claim 11 have been amended to replace the phrase "may be effected by" with the word "using".

The slash in original step b) of claim 11 has been deleted and the claim has been amended to define that the rinds of *G. pedunculata* and/or *G. cowa* can be used. In claim 11, HCA has been replaced by hydroxy citric acid. This is supported by the description on page 1, line 6 of the specification and the attached printout from [www.acronymfinder.com](http://www.acronymfinder.com)

Original step i) of claim 11 has been amended to delete the word "was."

Claims 1 and 11 have amended to delete the word "athermal" from the preamble of these claims. In this invention, the athermal step is the use of osmotic membrane distillation for concentrating the *Garcinia* extract for the enrichment of (-)-hydroxycitric acid without the formation of (-)-hydroxycitric acid lactone.

Therefore, it is respectfully requested that this rejection be withdrawn.

According to the Official Action, claims 1-11 are rejected under 35 USC 103(a) as being unpatentable over Moffett et al. (US patent 5,536,516) in view of Bowser (US Patent 6,299,777) and Jena et al. This rejection is respectfully traversed.

The standard test used to establish *prima facie* obviousness is the test set out by the Supreme Court in *Graham v. John Deere* (383 US 1, 148 USPQ 459 (1966)). To determine whether a claim is *prima facie* obvious:

- 1) the scope and content of the prior art are to be determined;
- 2) the differences between the prior art and the claims at issue are to be ascertained; and
- 3) the level of ordinary skill in the pertinent art resolved.

In addition, according to MPEP 2141, citing *Hodosh v. Block Drug Co., Inc.*, 786 F.2d 1136, 1143 n.5, 229 USPQ 182, 187 n. 5 (Fed. Cir. 1986), when applying 35 USC 103, the following tenets of patent law must be adhered to:

- 1) the claimed invention must be considered as a whole;
- 2) the references must be considered as a whole and must suggest the desirability and thus the obviousness of making the combination; and
- 3) the references must be viewed without the benefit of impermissible hindsight vision afforded by the claimed invention.

Reasonable expectation of success is the standard with which obviousness is determined. *In re Merck & Co., Inc.*, 800 F.2d109, 231 USPQ 375 (Fed. Cir. 1986).

The reason, suggestion or motivation to combine references may

be found explicitly or implicitly. While the references need not expressly teach that the disclosure contained therein should be combined with another, the showing of combinability must be clear and particular. *Ruiz v. A.B. Chance Co.*, 57 USPQ2d 1161 (Fed. Cir. 2000).

As the Examiner notes Moffett does not disclose the specific *Garcinia* species as claimed or the process of osmotic membrane distillation. Applicants have found that extracting the rinds at a temperature in the range of 115°C to 130 °C facilitates the leaching of (-)-hydroxycitric acid from the rinds of *Garcinia*.

One skilled in the art considering Bowser would not have a reasonable expectation to prepare an extract of *Garcinia* that is enriched with (-) hydroxycitric acid without formation of its lactone. The use of osmotic distillation membrane in the claimed process is to achieve pure hydrocitric acid and not lactones which are biologically less active than the hydrocitric acid. According to claims 1 and 11 the osmotic distillation is co-current which involves a hydrophobic membrane that separates the feed from the osmotic agent solution. According to col. 8, lines 54-55, of Bowser the osmotic distillation was conducted using four membranes alternately. Jena does not suggest the use of osmotic membrane distillation to obtain an extract with hydroxycitric acid.

The temperature ranges and the ratio of extract to solvent included in the claims result in unexpected results. The temperature at which the rinds are treated with de-ionized water is critical to effect the conversion of (-)-hydroxycitric acid to lactone. If the volume of the solvent decreases then the extraction time will increase. High volumes of solvent will result in problems of non-selectivity.

The examiner has not established *prima facie* obviousness. One skilled in the art considering Moffett which discloses use of demineralized water and use of an anion exchange column would not consider using demineralized water and osmotic distillation to obtain hydroxycitric acid. Bowser discloses use of osmotic distillation to concentrate fruit juices by removing water not to obtain a

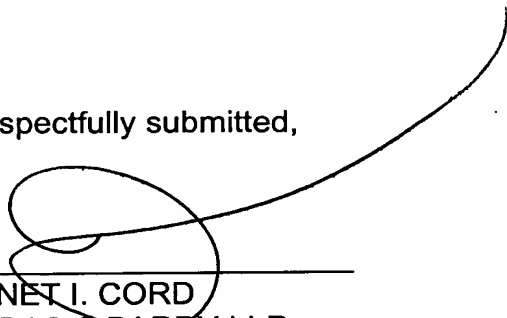
particular chemical compound. Jena discloses methods to determine how much HCA is present but does not disclose how to isolate HCA using osmotic distillation. Therefore, considering the claimed invention and the references as a whole there is no suggestion from the references to concentrate an extract of *Garcinia* by extracting the rinds with de-ionized water at a volume ratio of 1:4 at a temperature of 115°C to 130°C to obtain an extract and subjecting the extract to osmotic membrane distillation in a co-current mode in the

presence of an osmotic agent. In combining the references as the Examiner as done, it appears that the Examiner is relying on impermissible hindsight because there is no combination of the references that suggests the claimed invention.

Therefore, it is respectfully requested that the rejection be withdrawn.

The application is in condition for allowance and favorable consideration is respectfully requested.

Respectfully submitted,



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